

CLAIMS:

What is claimed is:

- 1 1. A method, in a requested file system server, for  
2 servicing a request, comprising:  
3 receiving a request for a referencing object from a  
4 client, wherein the referencing object refers to a  
5 referenced file system;  
6 looking up a location of the referenced file system  
7 in a separate data structure; and  
8 returning a redirection message indicating the  
9 location of the referenced file system to the client.
- 1 2. The method of claim 1, wherein the redirection  
2 message includes an address of a referenced file system  
3 server.
- 1 3. The method of claim 2, wherein the redirection  
2 message further includes a path.
- 1 4. The method of claim 2, wherein the referencing  
2 object has a file system identifier.
- 1 5. The method of claim 4, further comprising:  
2 encoding the file system identifier,  
3 wherein the redirection message further includes the  
4 encoded file system identifier.

1 6. The method of claim 5, wherein the referencing  
2 object is a top level object for a uniform namespace  
3 including all file systems on participating file system  
4 servers.

1 7. The method of claim 2, wherein the referenced file  
2 system server is the requested file system server.

1 8. The method of claim 1, wherein the separate data  
2 structure comprises a file system location database.

1 9. The method of claim 1, further comprising:  
2 receiving a redirected request for a file system  
3 object;  
4 identifying an encoded file system identifier in the  
5 redirected request;  
6 decoding the encoded file system identifier to form  
7 a file system identifier corresponding to a requested  
8 file system;  
9 looking up a path for the requested file system in a  
10 file system identifier data structure; and  
11 retrieving the root of the requested file system  
12 using the path for the requested file system.

1 10. The method of claim 9, wherein the file system  
2 identifier data structure comprises a file system  
3 identifier table.

1 11. The method of claim 9, wherein the separate data  
2 structure and the file system identifier data structure  
3 are stored in a file system location database.

1 12. The method of claim 1, wherein the referencing  
2 object is a top level object for a uniform namespace  
3 including all file systems on participating file system  
4 servers.

1 13. A method, in a requested file system server, for  
2 servicing a request, comprising:  
3 receiving a request for a file system object,  
4 wherein the request includes an encoded file system  
5 identifier;  
6 decoding the encoded file system identifier to form  
7 a file system identifier corresponding to a requested  
8 file system;  
9 looking up a path for the requested file system in a  
10 file system identifier data structure; and  
11 retrieving the root of the requested file system  
12 using the path for the requested file system.

1 14. The method of claim 13, wherein the file system  
2 identifier data structure is stored in a table.

1 15. The method of claim 13, wherein the file system  
2 identifier data structure is stored in a file system  
3 location database.

1 16. An apparatus, in a requested file system server, for  
2 servicing a request, comprising:

3 receipt means for receiving a request for a  
4 referencing object from a client, wherein the referencing  
5 object refers to a referenced file system;

6 location means for looking up a location of the  
7 referenced file system in a separate data structure; and

8 return means for returning a redirection message  
9 indicating the location of the referenced file system to  
10 the client.

1 17. The apparatus of claim 16, wherein the redirection  
2 message includes an address of a referenced file system  
3 server.

1 18. The apparatus of claim 17, wherein the redirection  
2 message further includes a path.

1 19. The apparatus of claim 17, wherein the referencing  
2 object has a file system identifier.

1 20. The apparatus of claim 19, further comprising:  
2 encoding means for encoding the file system  
3 identifier,  
4 wherein the redirection message further includes the  
5 encoded file system identifier.

1 21. The apparatus of claim 20, wherein the referencing  
2 object is a top level object for a uniform namespace  
3 including all file systems on participating file system  
4 servers.

1 22. The apparatus of claim 17, wherein the referenced  
2 file system server is the requested file system server.

1 23. The apparatus of claim 16, wherein the separate data  
2 structure comprises a file system location database.

1 24. The apparatus of claim 16, further comprising:  
2 means for receiving a redirected request for a file  
3 system object;  
4 means for identifying an encoded file system  
5 identifier in the redirected request;  
6 means for decoding the encoded file system  
7 identifier to form a file system identifier corresponding  
8 to a requested file system;  
9 means for looking up a path for the requested file  
10 system in a file system identifier data structure; and  
11 means for retrieving the root of the requested file  
12 system using the path for the requested file system.

1 25. The apparatus of claim 24, wherein the file system  
2 identifier data structure comprises a file system  
3 identifier table.

1 26. The apparatus of claim 24, wherein the separate data  
2 structure and the file system identifier data structure  
3 are stored in a file system location database.

1 27. The apparatus of claim 16, wherein the referencing  
2 object is a top level object for a uniform namespace  
3 including all file systems on participating file system  
4 servers.

1 28. An apparatus, in a requested file system server, for  
2 servicing a request, comprising:  
3 receipt means for receiving a request for a file  
4 system object, wherein the request includes an encoded  
5 file system identifier;  
6 decoding means for decoding the encoded file system  
7 identifier to form a file system identifier corresponding  
8 to a requested file system;  
9 path means for looking up a path for the requested  
10 file system in a file system identifier data structure;  
11 and  
12 retrieval means for retrieving the root of the  
13 requested file system using the path for the requested  
14 file system.

1 29. The apparatus of claim 28, wherein the file system  
2 identifier data structure is stored in a table.

1 30. The apparatus of claim 28, wherein the file system  
2 identifier data structure is stored in a file system  
3 location database.

1 31. A computer program product, in a computer readable  
2 medium, for servicing a request, comprising:  
3 instructions for receiving a request for a  
4 referencing object from a client, wherein the referencing  
5 object refers to a referenced file system;  
6 instructions for looking up a location of the  
7 referenced file system in a separate data structure; and  
8 instructions for returning a redirection message  
9 indicating the location of the referenced file system to  
10 the client.

1 32. A computer program product, in a computer readable  
2 medium, for servicing a request, comprising:  
3 instructions for receiving a request for a file  
4 system object, wherein the request includes an encoded  
5 file system identifier;  
6 instructions for decoding the encoded file system  
7 identifier to form a file system identifier corresponding  
8 to a requested file system;  
9 instructions for looking up a path for the requested  
10 file system in a file system identifier data structure;  
11 and

- 12 instructions for retrieving the root of the  
13 requested file system using the path for the requested  
14 file system.

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